

The following papers were read :—

1. Description of a new Form of Ratel (*Mellivora*) from Sierra Leone, with Notes upon the described African Forms of this Genus. By R. I. POCKOCK, F.L.S., F.Z.S., Superintendent of the Gardens.

[Received March 9, 1909.]

(Plate LXI.)

The Society has recently received from Mrs. Bettington a Ratel which not only came from Sierra Leone, a locality whence the genus *Mellivora* has never been previously recorded, but differs markedly in coloration from all the examples that I have seen alive and equally so from all the skins, with one exception, that are contained in the collection of the British Museum.

I propose to describe it as a new species under the name *Mellivora signata*.

MELLIVORA SIGNATA, sp. n. (Plate LXI.)

Forehead and fore part of the nape and sides of the neck quite white, the white on the sides extending farther back than on the upper surface of the neck. In the angle thus defined upon the posterior part of the nape, as well as on the shoulder, the colour is iron-grey, being a mixture of wholly black and wholly white hairs and of black hairs with a pale subapical annulus, the black predominating. Behind the shoulders the prevailing colour of the back is black ticked or speckled with yellowish and brownish grey. None of the hairs of this region appears to be wholly pale as in all other Ratels, except *M. cottoni*; but a considerable number of them have a narrower or broader pale subapical annulus imparting the speckled appearance above described. Over the hind-quarters this speckling gradually dies away; there is, indeed, a gradual but marked decrease in the amount of speckling from the fore part to the hind part of the back, the speckling of the fore part blending with the iron-grey hue of the shoulders and the latter blending to a certain extent with the white of the head and neck, though the angular line of demarcation is very visible. Tail all black. Legs, muzzle, and under parts black, as in all Ratels. Hairs on the sides of the neck showing a tendency to grow forwards and inwards from a whorl on the shoulders, thus forming a weak nuchal crest.

*Loc.* About 100 miles inland of Sierra Leone.

It was stated above that, with one exception, this specimen, which is not yet adult, differs markedly from all the skins of *Mellivora* in the British Museum. This exception is a piece of the skin of the hind-quarters, flat and native-prepared, which was brought from West Africa by Winwood Reade, together with other material for which no locality was in any case,



Moorepark Lith.

Glebe Press, Imp.

MELLIVORA SIGNATA.



I believe, certainly known. But the vessel in which Reade went to the Gaboon stopped at the Gambia and Sierra Leone\*, and it is possible that the skin in question came from the latter place. In any case it seems to belong to the same kind of Ratel as the one I have here described as new, though possibly subspecifically distinct from it. It is markedly dark in colour, being dark brown speckled with dirty yellow. Some of the hairs are dirty yellow throughout; others have a pale annulus of that tint.

Although the marked contrast between the colouring of the head and that of the body distinguishes *M. signata* at a glance from its congeners known to me, a specimen described by Pousargues from the French Congo appears to show a decided approach to it, despite Pousargues' remark that he could establish no difference between this specimen and examples from East and South Africa. He states, however, that the back bears a median iron-grey longitudinal zone, which extends from the middle of the upper side of the neck to the tail and is limited in front by a pure white "calotte" on the nape of the neck and head. It is obvious, however, that this Congoese specimen differs entirely from the one here described in the uniform iron-grey hue of the back, shoulders, and hind quarters.

Mrs. Bettington, who brought this Ratel from Sierra Leone, gave me the following information about it. According to native reports the species is nocturnal and lives to a great extent upon fish, which it catches with its paws at the edge of streams, and the specimen above described preferred fish to meat during the time she had it in captivity. It also showed a liking for bread in preference to meat. She kept it in a yard with some fowls and it never made any attempt to kill them. Thinking from this that it could be trusted with other living animals, she allowed it access one day to some puppies, but these it proceeded to devour without delay. When she put it with an Irish terrier the two merely sniffed each other and parted, although the terrier would on ordinary occasions attack, and if possible kill, any wild animals—such as civets—it came across. This incident has an interesting bearing upon the theory that the Ratel is protected by its scent from attacks by large carnivora, a protection with which is associated what is believed to be the warning characters of its coloration †.

Unfortunately the animal died from a form of "distemper," probably contracted on the voyage, a few weeks after being deposited in the Gardens. Its anal stink-glands resembled in position those of Skunks (*Mephitis*) although smaller. There was a pair of them, each about the size of a thrush's egg, opening upon a papilla or nipple, just within the anal orifice, and lying obliquely backwards deep in the surrounding tissue. The

\* See 'Adventures in the Forest and the Field,' by The Old Shekarry (H. A. Leveson), pp. 160-278.

† Pocock, P. Z. S. 1908, pp. 949-951.

external or adanal portion of the gland consisted of spongy tissue traversed by a narrow passage leading to the aperture on the papilla. This no doubt was the secreting area. The internal or adoral portion, on the contrary, formed a hollow semi-oval space, which apparently acts as a reservoir for the storage of the ejectable fluid.

The discovery of this form of *Mellivora* in the Sierra Leone district considerably extends the known geographical range of the genus, which had not been previously recorded to the west of Lake Chad. It was also known to occur in the district between the Niger and the Congo, in the Ituri Forest, and in East and South Africa from Abyssinia and Somaliland to Cape Colony and Angola.

The East and South African Ratels have always been referred to the same species, *M. ratel* Sparrm., of which *M. capensis* Schr., *M. mellivora* G. Cuv., and *M. typicus* A. Sm. are absolute synonyms. There does not seem to have been sufficient material collected in different parts of East Africa to show whether these animals have been differentiated into subspecies distinguishable from typical *M. ratel* or not; but there is no doubt that specimens, from Suakin for example, are very like those from Cape Colony. Judging, nevertheless, from material in the British Museum, it seems that South African specimens have on an average more black hairs in the dorsal pelage and the white marginal line more strongly pronounced than in North-east African examples.

Three distinct species, however, have been described from West African material, namely:—

1. *Mellivora leuconota* P. L. Scater (P. Z. S. 1867, p. 98, pl. viii., and 1871, p. 232). Based upon a young specimen from West Africa which was separated from *M. ratel* on account of the nearly uniform whiteness of its upper side. When adult, the animal exhibited more grey on the posterior region of the back. This change in colour induced Dr. Scater to abandon the species, a conclusion in which he was followed by Pousargues (Ann. Sci. Nat. iii. p. 275, 1896) and by W. L. Scater (Fauna of S. Afr., Mamm. i. p. 110, 1900). P. L. Scater, however, remarked that even the adult animal had the crown white; and his description of the dorsal surface does not fit that of examples of the typical S. African *M. ratel* in the British Museum, which have the head and back dark iron-grey, with a large percentage of black hairs mixed with the white.

W. L. Scater's description of specimens in the Museum at Cape Town, of which he says "general colour above from forehead to base of tail greyish brown, becoming darker posteriorly," further shows that the head is not, so far as is known, white in the typical form. This is also apparently true of an example from Suakin, which presumably formed the basis of the description and figure of this animal in Anderson's and de Winton's 'Mammals of Egypt,' p. 246, 1902.